

APPENDIX A

//Title: Billing Example
//Version:
//Copyright: Copyright (c) 1999
//Author: Kelvin R. Porter
//Company: MCI WorldCom
//Description: Billing Example

```
public class BillingTest
{
    public class Datum
    {
        public String myName;
        private Datum () {};
        public Datum (String name) {myName = name;};

        public void add (String type, String value) {};
        public String toString ()
        {
            StringBuffer buffer = new StringBuffer (myName);
            buffer.append (": ");
            // ...
            return (buffer.toString ());
        };
    }; // class Datum

    public class PhoneDevice
    {
        private String myNumber;
        private String myType;
        public PhoneDevice (String number, String type)
        {
```

```
myNumber      = number;
myType        = type;
}; // PhoneDevice

public void offhook (String timestamp)
{
System.out.println(myType + ':' + myNumber + ' ' + "offhook " + timestamp);
}; // offhook

public void dialed_digits (String digits, String timestamp)
{
System.out.println(myType + ':' + myNumber + ' ' + "dialed=" + digits + ' ' +
timestamp);
}; // dialed_digits

public String getNumber ()
{
return (myNumber);
};

public void ring (String timestamp)
{
System.out.println(myType + ':' + myNumber + ' ' + "offhook " + timestamp);
};
};

// Invocation state.

private boolean invokedStandalone = false;

// Constructor

public BillingTest()
{
```

```
} // constructor

public void doFileInfo ()
{
// File Information.

Datum fileInfo = new Datum ("File Information");
fileInfo.add ("FileType", "Call-grouped & Timestamped Phone Operations");
fileInfo.add ("SourceTypeVersion", "1.3.1");
System.out.println (fileInfo.toString ());
};

public void doSourceInfo ()
{
// Source Information.

Datum contextData = new Datum ("Source Information");
contextData.add ("Source", "Switch 153 - 1503 Main St., Garland, TX");
contextData.add ("StartTime", "Jan 02 1997 03:00:05.3");
contextData.add ("StopTime", "Jan 09 1997 02:59:11.2");
System.out.println (contextData.toString ());
};

public String doCall_00000 ()
{
// Participants: call 00000

PhoneDevice phone1 = new PhoneDevice ("2149367856", "POTS");
PhoneDevice phone2 = new PhoneDevice ("9727291000", "Business Set");

// Call 00000 Sequence

phone1.offhook ("Jan 02 1997 03:00:05.3");
phone1.dialed_digits (phone2.getNumber(), "Jan 02 1997 03:00:06.8");
```

```
//...

return ("...");
};

public String doCall_00001 ()
{
return ("...");
};

// ...thru doCall_00499 ()...

// Fast Index Function.

public String doCall (int i)
{
String result;

switch (i)
{
case 0: result = doCall_00000 (); break;
case 1: result = doCall_00001 (); break;
//...
default: result = "Bad Index.";
}; // switch

return (result);
}; // doCall

public void doProcess ()
{
// File Information.

doFileInfo ();
```

```
// Source Information.
```

```
doSourceInfo ();
```

```
// Start processing calls.
```

```
int number_of_calls = 500;
```

```
String result;
```

```
for (int i = 0; i < number_of_calls; i++)
```

```
{
```

```
result = doCall (i); System.out.println (result);
```

```
};
```

```
// ...
```

```
}; // doProcess ()
```

```
public static void main (String[] args)
```

```
{
```

```
BillingTest billingTest = new BillingTest();
```

```
billingTest.invokedStandalone = true;
```

```
billingTest.doProcess ();
```

```
}; // main (...)
```

```
}
```